REMARKS

Upon amendment, Claims 54-68 are pending in the instant application. Claims 28-53 have been canceled without prejudice. New Claims 54-68 are related to compounds of Formula (II) as described throughout the Specification, for Example at Page 15, line 13, to Page 19, line 6, of the originally filed application.

Applicants note that the originally filed claims were directed solely to methods of treatment. Applicants further note that the compounds described in the newly added claims are encompassed by the formula described in previously Elected Group I as described in the Restriction requirement dated September 3, 2008. As such, Applicants respectfully request full examination of the compounds and compositions presented herein and the methods of use of Elected Group I. A search for uses of the compounds of Elected Group I would necessarily result in discovery of such compounds. Indeed, the search and examination of the compounds and their related methods of use would likely be co-extensive and, in any event, would involve such interrelated art that the search and examination of all groups can be made without undue burden on the Examiner.

Applicants respectfully reserve the right to pursue any non-elected, canceled or otherwise unclaimed subject matter in one or more continuation, continuation-in-part, or divisional applications.

Reconsideration and withdrawal of the objections to and the rejections of this application in view of the amendments and remarks herewith, is respectfully requested, as the application is believed to be in condition for allowance.

Claim Objections

Claims 28 and 53 were objected to for certain alleged typographical errors. In as much as Claims 28 and 53 have been canceled, the objections to these claims are moot.

Rejections Under 35 U.S.C. §112

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §112 for various matters outlined below. In as much as Claims 28-32, 34-38, 40-43 and 48-53 have been canceled, the rejections are moot. Nevertheless, Applicants have outlined the rejections and noted the inapplicability of these rejections to new claims 54-68.

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement with respect to the recitation of R^3, R^4 and R^8 as "heterocycloaklyl group, heteroaryl group or heteroaryl group." While Applicants strongly disagree with the Examiner's allegation, Applicants note that new claims 54-68 do not recite these variables for R^3, R^4 and R^8.

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement with respect to heterocycloalkyl or heteroaryl rings including 3 or more nitrogens, or any oxygen phosphorous, boron or sulfur as the heteroatoms. While Applicants strongly disagree with the Examiner's allegation, Applicants note that new claims 54-68 do not recite these variables.

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §112, first paragraph as allegedly failing to enable the treatment of a subject suffering from an infection by an organism or virus other than a Gram Positive Bacteria. The Claims are also rejected as allegedly failing to enable the treatment of a subject susceptible to an infection or preventing an infection. While Applicants strongly disagree with the Examiner's allegation, Applicants note that new claims 67-68 recite a method of treating a bacterial infection and a method of treating an anthrax infection, respectively. With regard to Claim 67, Applicants note that Table 2 (discussed in greater detail below) shows utility for both gram postive and gram negative bacterial strains.

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §112, first paragraph as allegedly failing to enable the treatment of a subject with a solvate or hydrate of a compound of Formula (I). While Applicants strongly disagree with the Examiner's allegation,

Applicants note that new claims 54-68 recite only the compounds of Formula (II) or a pharmacologically acceptable salt thereof.

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §112, second paragraph as allegedly indefinite with respect to the definition of variable R^4. Applicants note that the variable R^4 does not appear in new claims 54-68.

Rejections under 35 U.S.C. §103(a)

Claims 28-32, 34-38, 40-43 and 48-53 were rejected under 35 U.S.C. §103(a) as being unpatentable over by Gordeev et al. *WO02/059116* ("Gordeev"). Claims 28-32, 34-38, 40-43 and 48-53 were also rejected under 35 U.S.C. §103(a) as being unpatentable over by Locher *US 2004/0132764* ("Locher") in view of Hubschwerlen and Specklin *US 2005/0096343* ("H&S"). In as much as Claims 28-32, 34-38, 40-43 and 48-53 have been canceled, the rejections are moot. Nevertheless, Applicants have outlined the rejections and noted the inapplicability of these rejections to new claims 54-68.

The Examiner alleges that Gordeev discloses three preferred hybrid antibiotics in which a quinolone and oxazolidinone are chemically linked and which possess antibacterial activity. According to the Examiner, these compounds are similar to the elected species and that one of ordinary skill in the art would predict that the linker between the quinolone and oxazolidinone would not have a dramatic affect on the antibacterial ability of the compound because a hybrid antibiotic would retain its antibacterial faculty regardless of whether the linker is a piperazinyl group or a covalent bond.

The Examiner alleges that Locher teaches numerous antibiotic compounds which consist of quinolone and oxazolidinone derivatives chemically linked to each other. The Examiner noted Example 35 as most closely resembling the elected species which only lacks the hydroxyl group on the 4 position of the piperidine ring. The Examiner alleges the H&S discloses numerous antibacterial compounds similar to the elected species and cites Example 9 as most closely resembling the elected species.

Applicants respectfully disagree and traverse.

Applicants note that no definition of L in Gordeev would encompass the corresponding "linker" group of the instantly claimed compounds and methods. Furthermore, none of the compounds disclosed by Gordeev, Locher or H&S include the polar –O-R^7 group of the instant claims. Indeed, one of ordinary skill in the art would have had no motivation to incorporate the polar –O-R7 group at the linker position prior to the instant invention as the inclusion of such a polar group would have been expected to reduce the antibacterial activity of the compounds.

Applicants note that the –O-R^7 group of the instant claims provides for enhanced solubility over the compounds of the cited art. Applicants respectfully assert that one of ordinary skill in the art will readily appreciate the need for both therapeutic activity and enhanced water solubility for the use of a drug in pharmaceutical and phamacological applications.

Applicants have surprisingly and unexpectedly found that, despite the introduction of a polar group at the position of group -O-R^7, the antibiotic activity of the compounds can be maintained or even further improved. In this connection, Applicants respectfully submit Tables 1 and 2 which demonstrate the enhanced activity and solubility of the instantly claimed compounds with respect to the compounds disclosed in H&S.

Table 1 shows solubility tests wherein the solubility of a compound without group -O-R^7 is compared with a compound according to the present invention. From this Table, it can clearly be seen that the water solubility of the instant compounds is significantly enhanced.

Table 2 shows the activity of several compounds of the present invention when compared with the compounds disclosed in H&S.

In sum, Applicants contend that even if one of ordinary skill in the art had been motivated to attempt to increase the solubility of the compounds of Gordeev, Locher or H&S, one of ordinary skill in the art would have had no reasonable expectation of success in maintaining or enhancing the antibacterial activity of the compounds of Gordeev, Locher or H&S with the inclusion of a polar group.

As such, neither Gordeev, Locher nor H&S, alone or in combination, render the claimed invention obvious.

CONCLUSION

In view of the foregoing, reconsideration and withdrawal of all rejections, and allowance of the instantly claimed invention is earnestly solicited. If a telephone conversation with Applicants' attorney would help expedite the prosecution of the above-identified application, the Examiner is urged to call Applicants' attorney at the telephone number below.

FEE AUTHORIZATION

The Commissioner is hereby authorized to charge Deposit Account No. 04-1105 for the Petition to Revive and for any additional fee(s) due with this response. Any overpayment should be credited to the noted Deposit Account.

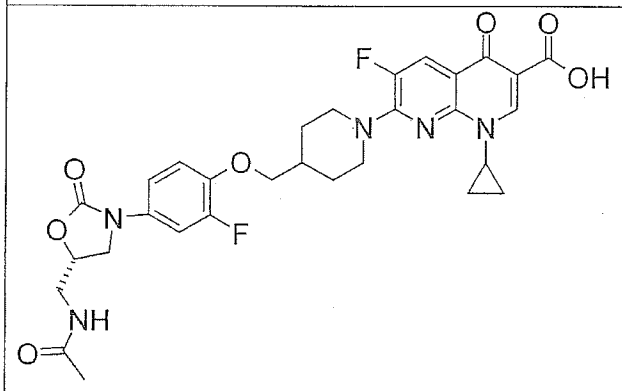
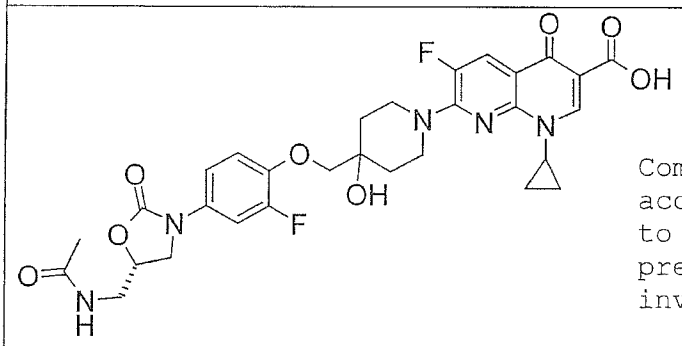
Dated: February 5, 2010

Respectfully submitted,

Electronic signature: /Nicholas J. DiCeglie, Jr./
Nicholas J. DiCeglie, Jr.
Registration No.: 51,615
Edwards Angell Palmer & Dodge LLP
P.O. Box 55874
Boston, Massachusetts 02205
(212) 308-4411
Attorneys/Agents For Applicant

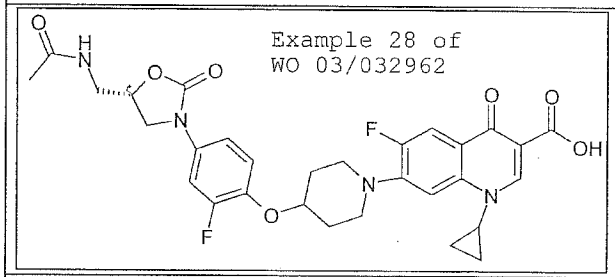
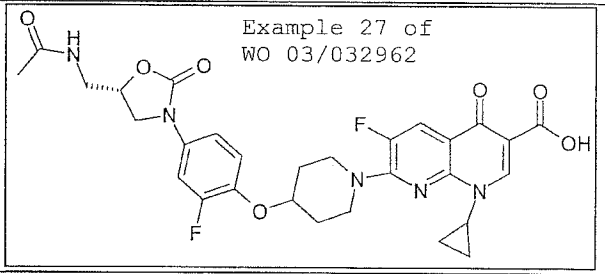
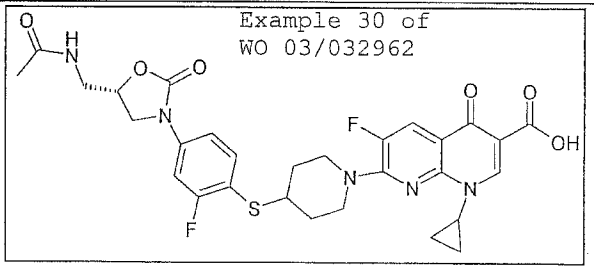
Customer No. 21874

Table 1: Solubility tests

	[mg/ml]
 Compound without group -O-R7	0.01
 Compound according to the present invention	0.28

Conditions: Na/K phosphate buffer 0.1M, pH 7.0

Table 2

MIC [µg/ml]	Gram (+) strains			Gram (-) strains		
	S. aureus	E. faecalis	S. pneumoniae	H. influenzae	M. catarrhalis	E. coli
Example 72	0,13	0,25	0,06	1,00	1,00	0,13
Example 76	0,13	0,13	0,06	0,50	1,00	0,06
Example 79	0,25	0,25	0,25	0,50	1,00	0,03
Example 83	0,25	0,50	0,13	0,06	0,25	0,06
Example 84	0,06	0,50	0,25	0,06	0,25	0,06
Example 86	0,25	1,00	0,50	0,06	1,00	0,06
Example 87	1,00	0,25	0,25	1,00	2,00	0,06
 Example 28 of WO 03/032962	0,25	n.d.	0,06	0,50	0,50	0,06
 Example 27 of WO 03/032962	0,25	n.d.	0,06	1,00	1,00	0,25
 Example 30 of WO 03/032962	0,25	0,13	0,06	0,50	0,25	0,13